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AIR COMMAND AND STAFF COLLEGE

STUDENT REPORT

A CLASSROOM TRAINING EVALUATION PROGRAM
FOR THE DIRECTORATE OF EVALUATION AND
STANDARDIZATION, US ARMY AVIATION CENTER

MAJ MICHAEL J. JUNEAU

85-1395

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TITLE A CLASSROOM TRAINING EVALUATION PROGRAM FOR THE DIRECTORATE
OF EVALUATION AND STANDARDIZATION, US ARMY AVIATION CENTER

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requirements for graduation.

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PREFACE

Educational evaluation is a critical function for all training institutions. It is necessary to determine if the training goals are being met, and if not, why! An effective evaluation program must determine if training deficiencies exist, so that reasonable, valid changes can be implemented to improve the training product. The US Army's training system, governed by TRADOC Regulation 350-7, A Systems Approach to Training, recognizes the importance of educational evaluation. As defined in the regulation, the purpose of evaluation is "to determine if soldiers are capable of performing their duty tasks and if units can accomplish their mission." (4:3-1) The evaluation mission is considered a shared responsibility between the training base and field units. However, the training bases are uniquely responsible for assessing the effectiveness of the resident and nonresident training programs (4:3-2).

The US Army Aviation Center (USAAVNC), Fort Rucker, Alabama, is the training base for all US Army aviation related training. Therefore, it is responsible for the evaluation of all Army resident and nonresident aviation training programs. The Directorate of Evaluation and Standardization (DES), at USAAVNC, is charged with the responsibility of evaluating the effectiveness of training at the Aviation Center. DES performs this function through its Training Evaluation Strategy. This strategy, which will be discussed in greater length in Chapter 2, establishes a four-step procedure to manage the evaluation mission. It consolidates feedback, from a variety of separate evaluation programs, to identify training related problems and recommend appropriate corrective actions. One source providing feedback for the strategy is the Classroom Training Evaluation (CTE) Program.

The current CTE program lacks definitive procedures and is not providing adequate feedback to support DES's overall Training Evaluation Strategy. This deficiency was catalyst for this study to develop a more detailed CTE program, thus improving the quality of classroom evaluations and provide better feedback to the evaluation strategy.

It must be noted that Chapter 4 of this report is not printed in the standard ACSC study format. It is intended to be a "stand alone" document that meets the format required by the study's sponsor, the Directorate of Evaluation and Standardization, US Army Aviation Center.

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The author appreciates the efforts of several individuals who were instrumental in this effort. LTC Jerome Tastad, Deputy Director, DES, provided valuable advice in the development of the CTE program, and Cpt William Phillips, Internal Evaluation Branch Commander, DES, supplied a great deal of the resource material. A special thanks goes to LTC John T. Blamey, of the Air Command and Staff College, for his advice and editing which greatly enhanced the quality of this report.

ABOUT THE AUTHOR

Major Michael J. Juneau graduated from Louisiana State University in May 1972, and received a Bachelor of Science degree in Vocational Agriculture Education. After graduation, he served as a graduate assistant in the Vocational Education Department while completing his MS degree in Vocational Education. Major Juneau entered the Army in March 1974. After completing the Armor Officer Basic Course and flight training, he was assigned to an Air Cavalry Squadron in the Federal Republic of Germany. Upon returning from Germany, he attended the Armor Officer Advance Course and was then assigned to Fort Ord, California. While at Fort Ord, he commanded a Combat Support Company of an Infantry Battalion and served as an operations officer in an Attack Helicopter Company. In 1981, Maj Juneau attended the Army's Combined Arms Service Staff School at Fort Leavenworth, Kansas, and was subsequently assigned to Fort Rucker, Alabama. Prior to attending the Air Command and Staff College, Major Juneau served as Commander, Internal Instructional Systems Evaluation Branch, Directorate of Evaluation and Standardization, and was responsible for the evaluation of all resident programs of instruction at Ft Rucker. Major Juneau has published A Guide to Cooperative Agriculture Education and co-authored two other publications--A Handbook for Vocational Agriculture Teachers and Sequencing of Emergency Procedure Training During the Initial Entry Rotary Wing Course.

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EXECUTIVE SUMMARY

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85-1385

AUTHOR(S)

MAJOR MICHAEL J. JUNEAU, US ARMY

TITLE

A CLASSROOM TRAINING EVALUATION PROGRAM FOR THE
DIRECTORATE OF EVALUATION AND STANDARDIZATION,
US ARMY AVIATION CENTER .

I. Purpose: To develop a Classroom Training Evaluation Program for the Directorate of Evaluation and Standardization (DES), US Army Aviation Center, Fort Rucker, Alabama.

II. Problem: The DES classroom evaluation program was inadequate and did not meet all DES responsibilities and requirements. Development of a more comprehensive evaluation program was required to accomplish these needs.

III. Discussion: The proposed classroom evaluation program establishes procedures and responsibilities for classroom evaluations at the Army Aviation Center. It was developed through an examination of appropriate policies and directives to determine DEL requirements for classroom evaluation and an investigation of local staffing guides, as well as, an interview with DES representatives, to determine resources available for a classroom evaluation program. The program designates the Evaluation Division as the responsible agency and the Internal Evaluation Branch, through

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a program coordinator, as the office responsible for the day-to-day management of the program. The proposed program is based upon the use of two separate types of classroom evaluations. Type 1 classroom evaluations are designed to provide a "snapshot of training", through routine, periodic, classroom observations, by individuals not specially trained in educational evaluation. Type 1 evaluations will assist DES in detecting training problems in the training environment. Type 2 classroom evaluations will provide a more in-depth analysis of training problems that have been previously identified. They are designed to determine the true nature of training problems and identify their possible causes. Type 2 evaluations will be performed by personnel specifically trained in education evaluation techniques.

IV. Conclusion: The current classroom evaluation program is inadequate to meet DES classroom evaluation requirements. The proposed program will meet most of DES's classroom evaluation requirements but should be validated to "fine tune" the final product before final adoption.

V. Recommendation: The Directorate of Evaluation and Standardization, US Army Aviation Center, implement the proposed classroom evaluation program, and validate the effectiveness of the program through its use at Fort Rucker.

Chapter One

INTRODUCTION

This study was requested by the Directorate of Evaluation and Standardization (DES), US Army Aviation Center. This chapter will explain the parameters established by DES, which shaped the scope and detail of the study.

PURPOSE OF PROJECT

This project develops a Classroom Training Evaluation (CTE) Program for the Directorate of Evaluation and Standardization, US Army Aviation Center, Fort Rucker, Alabama. The purpose of the CTE program is to establish policies, procedures and responsibilities for classroom evaluations at Fort Rucker. The project includes a comprehensive plan that: (1) meets all DES's classroom evaluation responsibilities, (2) is simple to administer, and (3) is flexible enough to meet dynamic training requirements.

HYPOTHESIS

The current DES CTE program is inadequate to meet all the requirements outlined by TRADOC regulations and USAAVNC directives. By clearly defining all requirements, and using personal expertise and other available evaluation materials, a more complete CTE program can be developed to meet most of DES's classroom evaluation responsibilities, with currently available resources.

SCOPE

This project is limited to only developing a program to evaluate classroom instruction. The program is designed to provide a system for subjective evaluation of classroom instruction to detect potential problems and/or identify the possible causes of previously identified problems. The program is not designed to measure student performance. Other DES programs currently exist to measure these changes in student behavior.

LIMITATIONS

Time and resources preclude this project from including a validation of the proposed CTE program. However, validation will

be necessary to evaluate the effectiveness of the proposed program in meeting DES's classroom evaluation responsibilities. Based upon the validation results, adjustments may be necessary to "fine tune" the program prior to its final adoption by DES.

ASSUMPTIONS

The development of the Classroom Training Evaluation Program was based upon the following assumptions:

1. TRADOC requirements and USAAVNC directives to DES, concerning classroom evaluation policies, will not change in the near future.
2. DES will assume full responsibility for the training of all classroom instructors and evaluation of all academic instruction at Fort Rucker. This responsibility was previously shared with the Staff and Faculty Department. This assumption is based upon HQ, USAAVNC, initiatives, in October 1984, regarding the reorganization of DES. (6)

Chapter Two

BACKGROUND

Background data on the Directorate of Evaluation and Standardization, USAAVNC, is necessary to develop a CTE program that would be suitable for the organization. Therefore, this chapter will define the mission of DES, explain its approaches to training evaluations, and describe the requirements for a CTE program. This will establish the basis for classroom evaluations and define the parameters for a proposed CTE program.

DES MISSION

DES's mission, as stated in USAAVNC Reg 10-1, is:

Represent the USAAVNC as proponent agent for the United States Army Aviation Standardization Program and act as an extension of the Office of the Deputy Chief of Staff for Operations and Plans, Department of the Army, to monitor and evaluate Army-wide implementation of the Aviation Standardization Program; collect and analyze training effectiveness data as it relates to unit, resident, and non-resident training programs, and provide feedback to the training and combat development processes (3-19.01).

This mission statement is very general and includes a number of responsibilities; however, it can be distilled into two major tasks: (1) To standardize aviation related policies and procedures throughout the US Army, and (2) Evaluate the training effectiveness of aviation related instruction. The first task, although very important to the US Army, does not relate to classroom evaluations; therefore, it is not a part of this study. However, the second task, evaluate the training effectiveness of aviation related instruction, is what drives the CTE program, and is the focus of this study. Within DES, the Evaluation Division, is the proponent for this critical task. (See Figure 1 for DES Organizational Structure.) The next section will discuss how DES, and more specifically the Evaluation Division, approaches this critical evaluation task.

DES's TRAINING EVALUATION STRATEGY

The US Army's Aviation Center is a complex organization that consumes a large portion of the US Army training budget. It

conducts a total of 52 separate courses ranging from advanced flight training to basic aircraft maintenance (2:1-1). It is responsible for all resident flight training in the US Army and is the proponent for training of all Army aircraft mechanics. (See Figure 1 for USAAVNC Organizational Structure.) Within the Center, DES, through its Evaluation Division, is responsible for evaluating all these Programs of Instruction (POI). Because the Evaluation Division is not staffed to evaluate all courses continuously, DES uses a Training Evaluation Strategy that allows them to "zero in" on the most critical training problems.

The strategy uses a four-step procedure to manage the evaluation mission (1:Annex L):

- Problem area detection.
- Identification/Verification of the cause of the problem.
- Recommendation for change.
- Follow-up.

The first step, problem area detection, identifies problems existing with the training product and/or in the training environment. This step provides a means to consolidate data from all DES evaluation feedback programs, so that problems can be identified, priorities established, and investigation efforts initiated. These feedback programs, operated by other branches with DES, include:

- Branch training teams
- Instructor pilot evaluations
- Graduate surveys
- Student critiques
- Classroom evaluations
- Test item analysis
- Field performance checks

Each of these programs generate valuable information for identification of potential training deficiencies. Individually, these programs are less likely to identify a problem; however, when information from one program correlates information from other sources, the data becomes more meaningful and valid in problem detection. Feedback, from these various sources, is collected through a monthly trend list that describes potential problems in each area. A program coordinator consolidates these lists, and convenes a quarterly meeting to discuss each problem. Armed with

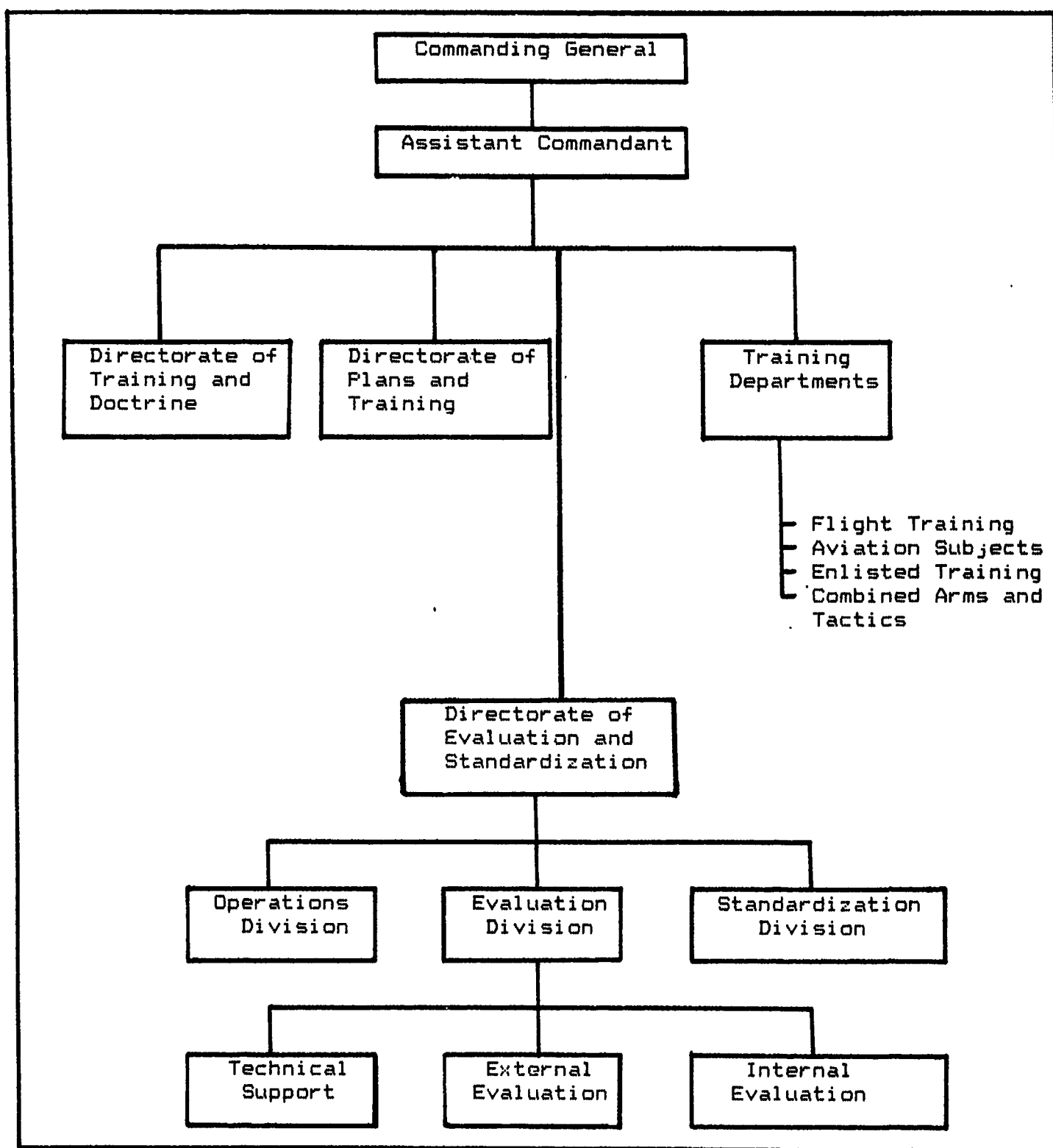


Figure 1: USAAVNC and DES Organizational Structure for Training and Training Evaluation. (Excludes all support organizations and other separate agencies.)

this information, the director of DES prioritizes the potential problem areas for more in-depth evaluation, and establishes evaluation objectives to guide future information collection efforts by the various feedback programs.

The second step, identification/verification of the cause of the problem, is critical because valid recommendations for improvement cannot be made until the cause of a problem is known. This step avoids treating the symptoms of a problem, by conducting in-depth study to identify the real cause(s) of training problems. Experience has shown that in some cases the real problem may be masked. For example--an instructor experiences a steady drop in student performance in a particular block of instruction. Without in-depth study, it might appear that the instructor's performance has fallen off and is causing the problem. This may be true; however, the true cause could also be that the entry level knowledge of the students had dropped, and that the training developers had not adjusted the instruction accordingly. In this case, replacing or attempting to correct the instructor would not solve the problem. Although this is a simplistic example, it illustrates the need for in-depth study to identify the real cause of a problem before a valid recommendation for corrective action can be developed. This step normally requires additional study and the development of an evaluation plan. The evaluation plan, in most cases, will involve some type of classroom evaluation.

The third step, recommendation for change, is a normal staff action. It involves DES communicating the problem to the training developer and directing corrective action. DES does not develop corrective action. It only identifies where the problem exists, and then directs the training departments to prepare corrective action.

The fourth step, follow-up, is as important as all the other steps. Evaluation serves no useful function unless improvement in the training process occurs. Therefore, the effects of a change in the training environment must be evaluated by follow-up, to determine if the training department initiated actions to correct the deficiency and whether the corrective actions implemented were effective. This step establishes a suspense system to ensure effective follow-up of all recommendations.

REQUIREMENTS OF THE DES EVALUATION STRATEGY

From the preceding discussion of the DES Training Evaluation Strategy, it is obvious that two types of evaluations are required to meet the intent of the strategy.

The classroom evaluations necessary to complete Steps 1 and 4 are very superficial when compared to the in-depth evaluation

required to complete Step 2. The classroom evaluations used to complete Steps 1 and 4 do not require trained evaluators since they are only surveying the training environment and the actual delivery of the training. However, Step 2 of the DES Strategy requires an in-depth review of the entire training development process as detailed in TRADOC Regulation 350-7.

This evaluation of the entire development process is essential to determine the actual cause of the training problem identified in Step 1 of the strategy. This type of evaluation must address:

Are the correct tasks being taught?

Are the objective standards appropriate to the student population?

Etc.

An evaluation of this nature will require a skilled evaluator that is schooled in the training development process. Therefore, two types of evaluation are required to implement the DES Strategy, and each type of evaluation requires a different level of evaluation expertise. The following are the characteristics of the two types of evaluation.

Type 1 Evaluations.

Purpose. To detect problems with classroom instruction.

Characteristics.

- Will involve the observation of classroom instruction only.
- Evaluators need not to be experts in training development but must be familiar with accepted classroom instructional procedures at USAAVNC.
- Will fulfill the requirements for Steps 1 and 4 of DES's Training Evaluation Strategy.

Type 2 Evaluations.

Purpose. To determine if classroom instruction contributes to a particular problem, and if so, to identify what is wrong with the instruction.

Characteristics.

- Evaluators must be well versed in the training development process.

- Evaluators must be trained to conduct training evaluations.

- Will require an analysis of the training development process, as well as, classroom instruction observations.

- Will fulfill requirements for step 2 of DES's Training Evaluation Strategy.

This interpretation of the two types of evaluations is based upon established requirements. Although, all the requirements mentioned do not necessitate highly trained specialist, by categorizing classroom evaluations into these two distinct types, DES gains greater flexibility in tailoring the available evaluation resources to a particular situation.

Chapter Three

CURRENT ENVIRONMENT

This chapter will describe the current DES classroom evaluation program and highlight its inadequacies, outline the resources DES is willing to commit to a CTE program, and discuss the existing evaluation material that was helpful in developing a new CTE program for Fort Rucker. Information provided in this chapter, coupled with the requirements for a CTE program established in Chapter 2, provide the basis for the program outlined in Chapter 4.

CURRENT DES CLASSROOM EVALUATION PROGRAM

The current USAAVNC Classroom Evaluation Program is conducted by DES in conjunction with the Staff and Faculty Department, Directorate of Training and Doctrine. The Staff and Faculty Department is involved in evaluation because they are currently responsible for the training of all academic instructors. As indicated in Chapter 1, Assumption Number 2, this function will revert to full DES responsibility in the near future. Therefore, this project addressed DES as the only responsible evaluation agency.

The Internal Evaluation Branch, within the Evaluation Division, is responsible for the classroom evaluation program in DES. Currently, there are no procedures that clearly outline the intent of this program or delineate responsibilities. The program is basically accomplished through verbal guidance and procedures, and relies on the use of an observation checklist. Evaluators, from the Staff and Faculty Department and DES, attend 12 randomly selected classes each week. These evaluators complete the observation checklist at the end of each evaluation, and forward the form, through command channels, to the Assistant School Commandant.

This ongoing program fulfills the requirements of higher headquarters and marginally meets the needs of Step 1 in DES's Training Evaluation Strategy. The checklist used in this evaluation provides a cursory look at the instruction, and with minimum changes it could meet the needs of a Type 1 Evaluation. However, formal procedures must be established to determine: which classes are reviewed, how evaluators are selected, and how to ensure results are tracked and incorporated into the Training Evaluation Strategy.

The current classroom evaluation program does not fulfill the requirements established for Type 2 Evaluations. There are also no procedures to determine "why" the classroom instruction is not meeting its objective, if the problem is not readily apparent in the classroom. As mentioned in Chapter 2, this function is critical for DES to make valid recommendations to the training developer.

AVAILABLE RESOURCES

The Internal Evaluation Branch currently has two civilians and three military evaluators capable of conducting classroom evaluations. These individuals are also responsible for a number of other duties and represent the only personnel available for Type 2 Evaluations. DES, as a whole, has a number of other officers who can effectively perform Type 1 Evaluations. These individuals periodically attend classes for a variety of reasons associated with their individual responsibilities, and if properly briefed, could be used to conduct Type 1 Evaluations. However, the total resources available for the CTE program are really dependent upon command influence and priorities. Therefore, DES and the Evaluation Division leadership must be the ones to establish the resources available for the program based upon the director's priorities. In an interview conducted on 20 October 1984, the Deputy Director of DES and the Internal Evaluation Branch Chief provided the following guidance concerning available resources for the CTE program:

(a) Current classroom evaluations require approximately four to five man-hours per evaluation. Type 1 Evaluations should be structured similarly.

(b) Plan no more than 12 Type 1 Evaluations per week. More can be conducted if resources from other DES branches are available.

(c) Do not program any specific number of Type 2 Evaluations. Their frequency will be determined through the Training Evaluation Strategy process. This will allow the organization to plan its resource allocation based on the priorities of the identified problem areas.

(d) Manpower demands for a Type 2 Evaluation are situation dependent, but will normally require in excess of 20 man-hours. This requirement must be recognized when establishing priorities for Type 2 Evaluations, and does not need to be addressed in the CTE program itself.

(e) The most important goal for the CTE program is to develop policies and procedures for classroom evaluations. These procedures must be flexible to allow for the frequent change that can be

anticipated in the evaluation schedules. The exact number of evaluations conducted each week will vary and will be determined by the Internal Evaluation Branch Chief based upon available manpower resources.

EXISTING EVALUATION MATERIAL

Research of available evaluation material was important in developing a new CTE program. In fact, the Instructional Systems Development Process requires a product search to determine if materials exist which meet the stated requirement, and are available and appropriate for use in the program being developed. This process prevents "reinventing the wheel", saves time and resources, and provides a proven and tested product. The development of the Type 1 and 2 Evaluation instruments was no different. All Army training installations are organized similarly with each having a DES with a mission similar to DES at Fort Rucker. However, how they accomplish this mission varies between installations. Many have viable classroom evaluation programs that could be of some use at Fort Rucker. Civilian sources are also available and could contribute to the development of this evaluation program. This section will discuss the sources which were useful in developing the proposed classroom evaluation program outlined in the next chapter.

TRADOC Schools.

(a) Research of other TRADOC schools produced a number of checklists that were useful in developing the Type 1 CTE checklist for Fort Rucker. There were no checklists which could be implemented "as is"; however, checklists used at the US Army Chemical School and the US Army Intelligence School were very similar to what will be required at Fort Rucker. Portions of these checklists were used in the development of the Type 1 Evaluation checklist.

(b) There were no CTE programs which would be useful for the Type 2 Evaluations. However, information received from the TRADOC Evaluation Team was useful in determining the items that are required for Type 2 Evaluations.

TRADOC Reg 350-7--A Systems Approach to Training. This regulation provides general information on what a school evaluation program should include. It does not provide specific guidance or information on classroom evaluations but does provide some general guidelines. The regulation stipulates the minimum requirements for the training development process, and these requirements were very useful in determining the appropriate items to include in the Type 2 Evaluation.

Civilian Sources. Research of civilian sources did not produce any specific information applicable to Fort Rucker. Ample resources

were available on evaluation techniques and methods for the measurement of student performance, and this provided useful background information; however, there was little information on a means of curriculum evaluation that was applicable to USAAVNC. (The sources used for general background information are included in the bibliography.)

NOTE

Chapter 4 of this project is designed to "stand alone" as a program directive for the Directorate of Evaluation and Standardization, US Army Aviation Center, Fort Rucker, Alabama.

Chapter Four

DES CLASSROOM TRAINING EVALUATION PROGRAM

I. INTRODUCTION.

1. References.

- a. TRADOC Reg 350-7 (Draft): A Systems Approach to Training.
- b. USAAVNC Reg 310-4: Preparation and Use of Lesson Plans and Instructor Guides.
- c. USAAVNC Reg 350-4: Classroom Management.
- d. DES Policy and Procedure Guide.
- e. Internal Evaluation Branch SOP.

2. General: Classroom training evaluations are a fundamental component of DES's Training Evaluation Strategy. They are used to gather information concerning the quality of instruction as it occurs and/or to clarify the nature and cause of problem areas previously identified. As outlined in Annex L, of DES's Policy and Procedure Guide, the Classroom Training Evaluation (CTE) program is the responsibility of the Evaluation Division, and is managed by the Internal Instructional System Evaluation Branch (IEB). However, all personnel involved with evaluations must fully support the program for it to achieve its goal of TRAINING IMPROVEMENT.

3. Purpose: This program establishes policies and procedures for the Evaluation Division, DES, to manage its classroom training evaluation responsibilities. It provides a process to plan, conduct, consolidate and report classroom evaluations.

4. Scope: The program contains a standardized approach to classroom evaluations. It is not intended to cover every possible classroom evaluation requirement; rather, it is designed to provide guidelines that meet most recurring needs. The program is also not designed to evaluate flight line instruction; although, some portions of the program may be useful in this instructional area.

5. Background: The program was developed, during the first quarter of FY 1985, to satisfy the Staff Problem Solving Project

requirement necessary for completion of the Air Command and Staff College. It is based upon an analysis of DES's classroom evaluation requirements and available resources. The type of classroom evaluations, established in this study, were driven by the requirements outlined in DES's Training Evaluation Strategy and directives from higher headquarters. Other TRADOC installations were contacted in an effort to find material that would be useful in the development of a program for Fort Rucker. Although a complete program was not available, useful information was received from the Army Intelligence School, Army Chemical School, the Army Training Board and the TRADOC School Evaluation Team. The checklists developed during the study incorporate selected portions of the material received from these sources.

II. PROCEDURES

The CTE program is built around the use of two distinct types of classroom evaluations, that will meet most of the DES classroom evaluation requirements. This section provides an explanation of the prescribed procedures for each type of classroom evaluation.

1. Type 1 - Classroom Training Evaluations.

a. Purpose. A Type 1 CTE is used to detect problems in classroom instruction. It is not intended to be an in-depth analysis of a particular course of instruction. It is intended to be an unannounced inspection of training, that will require limited preparation time, and can be conducted by most officers assigned to DES. Type 1 CTEs are designed to:

(1) Provide a snapshot of training, to be compared with other feedback sources to identify problem areas in the training system.

(2) Assist in standardizing classroom instruction at USAAVNC.

(3) Ensure training departments take appropriate action on previously submitted recommendations for improvement.

b. Selection of Classes for Observation. The CTE Program Coordinator (PC), appointed by the IEB commander, selects the classes to be evaluated. Selections should comply with the following general guidelines:

(1) A minimum of 12 evaluations per week must be accomplished.

(2) Approximately 50 percent of the evaluations should be selected at random, and over an extended period be equally divided between the training departments. This will assist in

standardizing instruction at USAAVNC and ensure no instructional area is overlooked.

(3) The remaining 50 percent of the evaluations should be targeted in selected areas that have been identified potential problem areas. This will increase the effectiveness of the program by concentrating in areas that will produce the greatest dividends. Some sources available to assist the Program Coordinator in establishing these targeted areas are:

- Higher headquarters direction
- Student critiques
- Test item analysis
- Areas of concern established during the last Quarterly Training Evaluation Strategy session.
- Follow-up evaluations of previous recommendations.

These guidelines are not intended to "tie the hands" of the PC, but to assist him in establishing a creditable program. The PC must develop a system to manage the evaluation schedule. The system should be one that meets the PC's individual style, but is easily understood by other members of the IEB. This system must ensure that: general guidelines are followed, the selected target areas are appropriate, and evaluators are provided adequate preparation time (at least one week advance notification). The PC must remain flexible and adjust his evaluation schedule to meet changing requirements.

c. Selection of Evaluators.

The PC, in conjunction with the IEB commander, assigns evaluators to the classes selected for evaluation. Since individuals in the Evaluation Division are assigned course areas of responsibility, evaluator assignments should coincide with these areas if possible. When an individual, selected as evaluator, is not assigned to the IEB, the PC must coordinate with the individual's supervisor before assigning him evaluator duties.

The structure of the Type I CTE does not require a highly qualified educational specialist. It only requires an individual familiar with Army training, and when properly briefed, capable of observing training and recording the results. Most officers and educational specialists assigned to DES are capable of conducting a Type I CTE. However, in some cases, an individual with specific qualifications may be required (e.g., requirement to evaluate technical information on an aircraft may require an SIP). The PC

and IEB commander must keep this requirement in mind when assigning individuals to the evaluation schedule.

The PC will ensure all evaluators are properly briefed prior to their performance of any evaluation. This does not mean that the PC must brief every evaluator before every evaluation. It implies that the PC must ensure the evaluator is familiar with the program and understands the requirements outlined in the following section.

d. Conduct of Evaluation (Evaluator Actions/Duties).

All evaluators will use the following procedures when conducting Type I CTEs.

(1) Before the Evaluation.

(a) Contact the PC and ensure you understand the purpose of the evaluation.

(b) Review the IEB working file. Look for completed or ongoing actions that might effect the outcome of your evaluation.

(c) Obtain a current Program of Instruction (POI) that is on file in the IEB library, and review the block dealing with this evaluation. Reproduce a copy of the block of instruction you are scheduled to evaluate. Use this copy to compare the POI entry with the lesson plan and student handouts.

(d) Obtain a training schedule and ensure training is scheduled appropriately. (Training schedules are maintained by the IEB).

(e) Pick up your evaluation packet from the PC and ensure you are familiar with its contents. If you have questions, ask the PC. The packets should contain:

- Training observation forms (a minimum of 3 is required)

- USAAVNC PAM 310-4; Preparation and use of Lesson Plans and Instructor's Guide

- USAAVNC PAM 350-4; Classroom Management

(2) During the Evaluation.

(a) Arrive at the training site NLT 10 minutes before the training is scheduled to begin. Introduce yourself to the Principal Instructor (PI), and state why you are there. Ask to be seated at or near the seat reserved for visitors. It is

important that you locate yourself where you can see all the training without interfering with the training or expected visitors.

(b) Inspect the visitor's folder. It should be organized and contain the information outlined in USAAVNC PAM 350-4. If there is no Lesson Plan (LP), ask the PI for a copy so you can complete your worksheet and follow the training. You also need to follow the instruction with the student handout(s).

(c) Review the training and complete the observation form (minimum of three copies required). These observations can lead to changes in the training program; therefore, be thorough, accurate, and objective in reporting your observations. Keep in mind that this is an evaluation of the training program, not just the instructor. Consider each item on the worksheet separately and record only what actually occurs. Only record items that can be easily supported by a documented reference. When a problem is recognized, do not hesitate to record it, but ensure good, as well as, bad comments are recorded.

(d) Do not interfere with the training. Try to be inconspicuous when taking notes, since this can be an annoying distraction in the classroom environment.

(3) After the Evaluation.

(a) Return all training materials to the Visitor's Folder or the PI. Leave your area as you found it! Respect the fact that the training area belongs to the PI.

(b) Give one copy of the completed worksheet to the PI and thoroughly brief him on your observations. Avoid arguments over controversial or unclear content of the training. The best way to avoid this situation is to be accurate in your evaluation and know that there is a documented reference to support your comments.

(c) Return the original and remaining copy of the observation form, along with the evaluation packet, to the PC. Highlight any information that you feel deserves immediate attention, and if necessary, personally debrief the PC on your findings.

e. Post Evaluation Action. No individual report, other than the completed observation form, is required for a Type I CTE. The PC collects all Type I Evaluations and is responsible for maintaining a CTE program log and a file of all observation forms. The CTE program log will include: the block of instruction observed, responsible training department, when the evaluation was conducted, evaluator's name, instructor's name, and major findings (if any). If follow-up action is required, the PC will annotate this fact in the log and establish a suspense system to ensure

follow-up action is completed. This log also serves as a useful guide when scheduling classes for evaluation.

Weekly, the PC will send a copy of each observation report, through channels, to the Assistant School Commandant for review. The reports should be sent "as is"; however, the PC must ensure they are legible and easily understood.

Each month, the PC also develops a list of potential problem trends identified through the CTE program, and provides it to the IEB commander as required by DES's Training Evaluation Strategy. The CTE trend list is compared to data provided by other feedback sources, which may clarify problems or identify major problems areas requiring further evaluation; therefore, the trend list should include all potential problems identified through the CTE program.

2. Type 2 - Classroom Training Evaluations.

a. Purpose. The purpose of a Type 2 CTE is to determine if classroom instruction contributes to a previously identified problem and to identify what is wrong with the instruction. It is designed to identify why a particular problem exists, and will require an in-depth analysis of the block of instruction. It is only conducted if an identified training problem requires additional evaluation to pinpoint the exact cause/source of the problem. The Type 2 CTE will also fulfill another DES responsibility: evaluation of the training development process. It provides a mechanism for ensuring the training agencies at USAAVNC are complying with the Systems Approach to Training process. This requirement, although not part of the CTE program, is an important role for DES, and can be fulfilled with a Type 2 CTE.

b. General Characteristics. A Type 2 CTE will normally require a study plan and will always require a final report. It is a thorough review of the training development process for a particular block of instruction, followed by a Type 1 CTE. It is intended to determine if the instructional design is appropriate, and in turn, if the instruction is being conducted as designed. In so doing, it will provide data to determine the cause of an identified training problem.

A Type 2 CTE is not intended to be a major study. The conduct of major studies are outlined in the IEB SOP. A Type 2 CTE is designed to clearly define a problem in a particular block of instruction, and trace it through the curriculum development process, to the classroom instruction, to determine its cause. The evaluation may be terminated when the evaluator has identified the nature of the problem. A Type 2 CTE may be very short if the problem is discovered quickly; however, if the investigation must

go through the complete Instructional Systems Development Process it will require significant time and effort.

c. Scheduling. Type 2 CTEs are managed by the CTE program coordinator and scheduled through DES's quarterly Training Evaluation Strategy meeting. Scheduling a Type 2 CTE is based upon the resources available, the urgency of need, and priorities of other evaluation requirements. Type 2 CTEs may also be required as part of a major study. In this case, resources for the CTE are included in the study's plan.

d. Selection of Evaluators. Evaluators for Type 2 CTEs are selected by the IEB commander. They must be trained instructional system evaluators, familiar with the training development process and classroom instruction techniques. Therefore, only personnel assigned to the Evaluation Division, and primarily the Internal Evaluation Branch, should be selected as evaluators. As with Type 1 CTEs, evaluators should, when possible, be selected in their responsible course area(s).

e. Procedures. The procedures for a Type 2 CTE are intended to be very flexible to allow the evaluator maximum freedom of action. Unlike Type 1 CTEs, evaluators are trained instructional system evaluators, and should not require much guidance. Therefore, Type 2 CTEs will only require an informal study plan. The study plan need not be as detailed as required for a major study and does not need to be published. However, it must be approved by the FC and IEB Commander to ensure it addresses the targeted problem area. As a minimum, the study plan must outline the purpose of the study and establish Essential Elements of Analysis (EEA).

EEAs should be established for each phase of the Systems Approach to Training (Analysis, Design, Develop, Implement) and will depend upon the nature of the problem being studied. The EEAs should be researched in the order established for the development process, so that once the evaluator is assured of the nature of the problem, he can terminate the project. It is necessary to conduct research in the proper order, because it is difficult to determine the effectiveness of course instruction or course design without first understanding the tasks established for instruction. Sample EEAs for each phase of the Systems Approach to Training are at Figure 3.

A final report is always required for a Type 2 Evaluation. It is not as extensive as a major study but must include the following items: (Definitions are the same as those established in Annex F, IEF SOP.)

- Purpose
- Background

- Essential Elements of Analysis
- Results
- Conclusion
- Recommendation

The report does not need to be a published document; therefore, it should be completed as a routine DF and addressed to the appropriate training department. Its intent is to quickly convey the results of the evaluation and make appropriate recommendations to the training developers, so that corrective action can be quickly implemented.

III. RESPONSIBILITIES

The overall responsibility for the CTE program rests with the Evaluation Division Commander. Specific responsibilities for individuals involved in the program are outlined below:

1. Internal Evaluation Branch Commander.

- a. Supervise and monitor the CTE program for the Evaluation Division.
- b. Appoint a CTE Program Coordinator.
- c. Designate Type 1 and Type 2 CTE evaluators. (The PC assists the IEB commander in this function.)
- d. Consolidate CTE feedback into the DES Training Evaluation Strategy.

2. CTE Program Coordinator (PC).

- a. Manage the CTE Program.
- b. Select classes to receive Type 1 CTEs.
- c. Schedule Type 1 and Type 2 CTEs.
- d. Assist the IEB commander in designating Type 1 and Type 2 CTE evaluators.
- e. Coordinate with supervisors for the use of evaluators assigned outside the IEB branch.
- f. Brief Type 1 CTE evaluators, and ensure established evaluation procedures are followed.

g. Maintain a CTE Program Log and a file copy of all Type 1 CTEs.

h. NLT Friday of each week, forward a copy of all Type 1 CTEs, conducted during the week, to the Assistant School Commandant.

i. NLT the first week of each month, analyze the results of all Type 1 CTEs, and submit a CTE trend list to the IEB commander.

j. Monitor the conduct of Type 2 CTEs.

k. Develop a CTE program suspense system to ensure the timely follow-up of all recommendations.

3. Evaluators.

a. Plan, conduct, and report assigned CTEs as outlined in this program.

b. Coordinate with the CTE PC for schedule changes or any assistance.

c. Recommend changes to this program as appropriate.

CLASSROOM TRAINING EVALUATION
OBSERVATION CHECKLIST

Block of Instruction: _____			
Subject: _____		Course _____	
Instructor: Name _____	Unit _____	Phone _____	
Evaluator: Name _____	Unit _____	Phone _____	
Evaluation Location _____		Date _____	
Time: Start _____		Stop _____	

A. TRAINING ENVIRONMENT AND PERSONAL CONDUCT.

	<u>YES</u>	<u>NO</u>	<u>N/A</u>
1. Training area: set up as outlined in lesson plan and complies with USAAVNC REG 350-4.	___	___	___
2. Learning environment: conducive to learning. (e.g.; lighting, noise, temperature, distractions).	___	___	___
3. Personal conduct and appearance: IAW USAAVNC REG 350-4.	___	___	___
4. Visitors Folders: available and IAW USAAVNC REG 350-4.	___	___	___

COMMENTS _____

B. TRAINING MATERIALS

5. Lesson plan or instructor's guide: IAW USAAVNC PAM 310-4; meets intent of instruction outlined in POI scope.	___	___	___
6. Student handouts: follows instructional flow and lesson plan design; easily understood; accurate (technically and administratively	___	___	___
7. Training aids and equipment: on hand and functional; appropriate for instruction.	___	___	___

Comments _____

Figure 2: Type 1 CTE Observation Checklist

Figure 2: Continued

C. CONDUCT OF TRAINING		YES	NO	N/A
8.	Training Time: conducted IAW schedule and lesson plan; too much or too little.	___	___	___
9.	Training Objectives: clearly stated; outlined in lesson plan and student handout; meets intent of training scope in POI.	___	___	___
10.	Instructor Knowledge: demonstrates competence as SME; technically accurate; well informed.	___	___	___
11.	Instructor Delivery: well rehearsed; good platform techniques (e.g.; articulate, understandable, good eye contact, not monotone).	___	___	___
12.	Classroom management: student questions solicited and answered; discussion relevant; IAW USAAVNC REG 350-4.	___	___	___
COMMENTS _____				

OVERALL ASSESSMENT: Check One				
Outstanding ___; Above Average ___; Average ___;				
Below Average ___; Unsatisfactory ___				
COMMENTS (Required for below average and unsatisfactory ratings)				

Observer's signature _____				
(This Form Must Be Completed in Triplicate)				

Figure 2: Continued

Sample EEAs for each phase of the system's approach to training are listed below. The list only provides a representative sample of the type EEAs that should be established during a Type 2 CTE.

ANALYSIS EEAs: Information available through course Development Division, DOTD.

1. Are there critical tasks selected for training that cover the problem area being researched? (Many times the task was not selected for training at the training base.)
2. Is the instructional site appropriate?
3. Are tasks performance measures (TPM) adequate?
4. Have TPMs been verified?
5. Is the audit trail accurate and up to date?
6. Is the target population description accurate?

DESIGN EEAs: Information available through responsible training department.

1. Are the terminal learning objectives (TLO) written IAW appropriate directives?
2. Do the TLOs reflect the TPMs?
3. Are the TLOs achievable by the target population?
4. Is the training sequence conducive to effective learning?
5. Can the learning objectives be measured?

DEVELOP EEAs: Information available through responsible training department.

1. Is the training management plan adequate?
2. Are the lesson plans written IAW USAAVNC PAM 310-4?
3. Does an audit trail of actions exist, and is the audit trail accurate and up to date?
4. Is instructor training adequate to support the block of instruction?

Figure 3: Type 2 Sample Essential Elements of Analysis

Figure 3: Continued

IMPLEMENT EEAs: Information available through the responsible training department.

1. Is the training conducted as planned?
2. Are students meeting the learning objectives?
3. Are training data and information collected in support of validation and evaluation efforts?
4. Is the training conducted IAW USAAVNC directives?
5. Are the instructors properly trained to teach the material?

Figure 3: Continued

Chapter Five

CONCLUSIONS AND RECOMMENDATIONS

This study has established the need for a Classroom Training Evaluation Program, examined the requirements for the program, and developed a workable CTE program for DES. This chapter will focus on conclusions and recommendations concerning the project.

CONCLUSIONS

Several conclusions can be drawn from this study.

1. The current CTE program at USAAVNC is inadequate to meet all DES classroom evaluation requirements. The current program is very superficial, does not contain formalized responsibilities and procedures, and only meets the needs of USAAVNC Headquarter's directives. It also does not provide adequate input into the DES Training Evaluation Strategy to permit accurate development of corrective action.
2. A comprehensive CTE program is necessary to meet all DES classroom evaluation responsibilities. Use of a single type of evaluation instrument for all evaluation requirements is too inefficient. It would constrain DES's evaluation program because of limited personnel resources and also provide inadequate information for decision making on curriculum issues. The adoption of two types of classroom evaluations will make better use of available resources and meet most of DES's classroom evaluation responsibilities.
3. The program proposed in Chapter 4 will meet DES requirements for classroom evaluations with the resources currently available.
4. The proposed CTE program has not been validated; therefore, a validation phase should be incorporated in its implementation schedule to allow "fine tuning" of the program procedures and checklist.

RECOMMENDATION

It is recommended that the Directorate of Evaluation and Standardization, USAAVNC:

1. Implement the proposed Classroom Training Evaluation Program outlined in Chapter 4.
2. Validate the program, during implementation, to evaluate the effectiveness of the program in meeting DES's classroom evaluation needs. If successful, the program can be adjusted to correct inefficiencies prior to final adoption by the directorate.

BIBLIOGRAPHY

A. REFERENCES CITED

Military Publications

1. Directorate of Evaluation and Standardization. Policy and Procedure Guide. Fort Rucker, AL, Jan 84.
2. US Army Aviation Center. Schedule of Courses. Fort Rucker, AL, FY 85.
3. US Army Aviation Center. USAAVNC Reg 10-1: Organization and Functions. Fort Rucker, AL, Jul 83.
4. US Army Training and Doctrine Command. TRADOC Reg 350-7 (Draft): A Systems Approach to Training. Fort Monroe, VA, Jan 84.

Unpublished Documents

5. Directorate of Training and Doctrine. Staff Summary Sheet: Classroom Evaluation. Fort Rucker, AL, Jul 84.

Other Sources

6. Tastad, J., Lt Col, USA, Deputy Director, Directorate of Evaluation and Standardization, US Army Aviation Center, Fort Rucker, AL. Interview with author. Fort Rucker, AL, 20 Oct 1984.

B. RELATED SOURCES

Books

- Ebel, Robert L., Essentials of Educational Measurement. Englewoods Cliff, New Jersey: Prentice-Hall, Inc., 1965.
- Gronland, Normand E., Measurement and Evaluation in Teaching. London, England: The Macmillian Co., 1971.

CONTINUED

Popham, James. Eduational Evaluation. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1975.

Provus, Malcolm. Discrepancy Evaluation. Berkeley, CA: McCutchan Publishing Corp., 1971.

Military Publications

US Army Aviation Center. USAAVNC Reg 310-4: Preparation and Use of Lesson Plans and Instruction Guide. Fort Rucker, AL, May 80.

US Army Aviation Center. USAAVNC Reg 350-4: Classroom Management. Fort Rucker, AL, May 82.

US Army Traing and Doctrine Command. TRADDOC Pam 350-30: Interservice Procedures for Instructional Systems Development. Fort Monroe, VA, Aug 75.

Unpublished Material

US Army Chemical School. Instructor Assessment Guide. Fort McClellan, AL, no date.

US Army Intelligence School. DOTD Instructor Evaluation Booklet. Fort Huachuca, AZ, no date.

US Army Training and Doctrine Command. School Evaluation System Checklists. Fort Monroe, VA, no date.